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| 09/755,166   | 01/08/2001  | Tae-Young Kil        | P56256              | 3929             |
| 7590 01/28/2004  |             |                      |                     |                  |
| Robert E. Bushnell<br>Suite 300<br>1522 K Street, N.W.<br>Washington, DC 20005 |             |                      |                     |                  |
| EXAMINER<br>FARKHONDAR TONSEY, FARIMA  |             |                      |                     |                  |
| ART UNIT   |             | PAPER NUMBER         |                     |                  |
| 2681   |             |                      |                     |                  |

DATE MAILED: 01/28/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/755,166

Applicant(s)

KIL, TAE-YOUNG

Examiner

Farima Farkhondar

Art Unit

2681

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 4 and 10 is/are rejected.
- 7) ☒ Claim(s) 3, 5-9 and 11-19 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 January 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2, 4. 6) ☐ Other: \_\_\_\_

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 9 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 9, the claim is indefinite because it depends on itself. The examiner has assumed that claim 9 is dependent on claim 8, in preparation of this office action.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sayers, US Patent 6539237, in view of Barbey, US Patent 6526437, and Rautiola, US Patent 5924030.

Regarding claims 1 and 10, Sayers discloses a method for providing public and private mobile communication service in a mobile communication system (column 7, lines 17-

26) including public cell areas each having a corresponding base station transceiver subsystem for communicating with mobile stations having access to a public mobile communication service (Figure 1 – public wireless network 111), a plurality of base station controllers for communicating with the base station transceiver subsystems (Figure 1 – BCS 16 communicating with BTS 12s), a mobile switching center for communicating with said base station controllers and with a public switched telephone network and an integrated services digital network (Figure 1, MSC 17 communicating with BSC 16 and PSTN/ISDN/Internet 8), said mobile switching center being connected to a location register unit including a home location register and a visitor location register (Figure 1, MSC17 coupled to HLR 19 and VLR 13), said method comprising the steps of: forming a common cell area in which a mobile station can communicate with a private mobile communication service and said public mobile communication service (Figure 1 – cell area 11's also column 8, lines 60-63), said step of forming a common cell area comprising the steps of: constructing a mobile communication network including a private base station transceiver subsystem for communicating with said mobile station within said common cell area (Figure 2- P-BTS 27), and including a public and private communication service unit for communicating with an Internet protocol network (Figure 2 –Gate way 42 within connection unit 29 communicating with Internet 24), said public switched telephone network (Figure 2 –Gate way 42 within connection unit 29 communicating with PSTN 26) and said integrated services digital network (Figure 2 –Gate way 42 within connection unit 29 communicating with ISDN 28); registering said mobile station in said common cell area for enabling said mobile

station in said common cell area to communicate with said private mobile communication service (Figure 4 – Gatekeeper 41, see also column 17, lines 59-61 and column 18, lines 52-61). Sayers does not disclose a public and private communication service unit for communicating with one of said base station controllers. However, Barbey discloses a public and private communication service unit for communicating with one of said base station controllers (Figure 3 – PN network connected to BSC at PLMN, see also column 4 lines 25-34). Therefore, at the time of invention, it would have been obvious to a person of ordinary skill in the art to modify Sayers with the above teachings of Barbey, in order to allow the public network (GSM terminals and private network DECT terminals to operate simultaneously (as suggested by Barbey – column 4, lines 25-34). Furthermore, the combination of Sayers and Barbey does not disclose the registration is in a private location register included in said public and private communication service. However, Rautiola discloses the registration is in a private location register included in said public and private communication service (Figure 1 VDB of element 11 connected to GTW 10, also see column 6, lines 37-41 and column 8, lines 28-36). Therefore, at the time of invention, it would have been obvious to someone of ordinary skill in the art to modify the combination of Sayers and Barbey with the above teachings of Rautiola, in order to register the visiting subscribers and store the visitors' subscriber information as suggested by Rautiola (column 8, lines 28-36).

5. Claims 2 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sayers, US Patent 6539237, in view of Barbey, US Patent 6526437, and Rautiola, US Patent 5924030, and further in view of Sibecas, US Patent 5940756.

Regarding claim 2, the combination of Sayers, Barbey, and Rautiola does not explicitly disclose wherein said step of registering comprises the steps of: utilizing an operator console in a call manager included in said public and private communication service unit to request registration for said private mobile communication service; displaying a service registration input screen on a monitor of said operator console; inputting information indicative of said mobile station and a subscriber to said private communication service; and storing said information in a database of said private visitor location register. However, Sibecas discloses wherein said step of registering comprises the steps of: utilizing an operator console in a call manager included in said public and private communication service unit to request registration for said private mobile communication service; displaying a service registration input screen on a monitor of said operator console; inputting information indicative of said mobile station and a subscriber to said private communication service; and storing said information in a database of said private visitor location register (column 5, lines 7-17, see also Figure 2, operator's console 314). Therefore, at the time of invention, it would have been obvious to someone of ordinary skill in the art to modify the combination of Sayers, Barbey, and Rautiola, with the above teachings of Sibecas, in order to provide access to

and alteration of information stored in HLR and VLR (as suggested by Sibecas – column 5, lines 13-14).

Regarding claim 4, the combination of Sayers, Barbey, Rautiola, and Sibecas further discloses the steps of: analyzing every message being applied to the public and private communication service unit (Barbey – column 4, lines 8-20); transparently transmitting the messages for the public mobile communication service to the base station controller in communication with said public and private communication service unit; and routing the messages for the private mobile communication service to said call manager (Barbey – column 4, lines 8-20).

***Allowable Subject Matter***

6. Claims 3, 5-9, 11-19 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Therefore the limitations as mentioned above of claim 3, 5, 8, and 11 along with additional subject matter associated with the claims (claims 6, 7, 9, and 12-19) comprises a combination of subject matter that has not been discovered in the prior art.

Regarding claims 3-7, the combination of Sayers, Barbey, Rautiola, and Sibecas does not disclose a router table in said call manager wherein said router table is disposed in a private message router and stores event information, as specified in the claims.

Regarding claim 8-9, the combination of Sayers, Barbey, Rautiola, and Sibecas does not disclose a step of performing a wire and wireless complex function by said public and private communication service unit, said wire and wireless complex function comprising the steps of: informing a private mobile switching center of said public and private communication service unit that a call terminates at a wire extension terminal of a private branch exchange; requesting, by said private mobile switching center, a private visitor location register to analyze whether there exists a mobile identification number of a private mobile communication service-registered mobile station corresponding to the wire extension terminal; determining, based on an analysis result obtained by said private visitor location register, whether the mobile identification number corresponding to the wire extension terminal exists for the private mobile communication service-registered mobile station; and transmitting a ring message to said private mobile communication service-registered mobile station, when it is determined that the mobile identification number corresponding to the wire extension terminal exists, as specified in the claims.

Regarding claims 11-19, the combination of Sayers, Barbey, Rautiola, and Sibecas does not disclose said public and private communication service unit comprising: a call manager which is a main controller of the public and private communication service unit; a private branch exchange connected to said public switched telephone network and



said integrated services digital network; and a first private base station controller for communicating with said mobile station within said common cell area, said public base station controller, said call manager and said private branch exchange, as specified in the claims.

### ***Conclusion***

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

US patent 6212395, Lu et al., Cellular communication system. A cellular private branch exchange for facilitating cellular communication for a first plurality of mobile station units, which includes a first base station subsystem for communication with a first and a second mobile station unit of the first plurality of mobile station units on respectively a first and a second cellular bearer data channel.

US patent 5818824, Lu et al., A private multiplexing cellular network for facilitating cellular communication for private mobile stations (MS's), public MS's, and hybrid MS's.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Farima Farkhondar-Tonsey whose telephone number is 703-305-6285. The examiner can normally be reached at 8:00 to 5:30.


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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vo Nguyen can be reached on 703-308-6728. The fax phone numbers for the organization where this application or proceeding is assigned is 703-872-9314.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the customer service whose telephone number is 703-306-0377.

Farima Farkhondar-Tonsey  
Examiner  
January 16, 2004

  
**SINH TRAN**  
**PRIMARY EXAMINER**